In the Application of:

Jeyhan Karaoguz, et al.

Serial No. 10/658,161

Filed: September 9, 2003

For: METHOD AND SYSTEM FOR
PROVIDING A SUPER CHANNEL IN A
MULTI-BAND, MULTI-PROTOCOL
HYBRID WIRED/ WIRELESS
NETWORK

Examiner: Wanda Z. Russell

Group Art Unit: 2462

Confirmation No. 5714

Electronically filed on 29-NOV-2011

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The Applicant requests review of the final rejection in the above-identified application, stated in the final Office Action mailed on August 29, 2011 ("Final Office Action") with a period of reply through November 29, 2011. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal. The review is being requested for the reasons stated on the attached sheets.

REMARKS

The present application includes pending claims 1-42, all of which have been rejected. Claims 1-42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Richter, et al., U.S. Patent 5,630,061 (hereinafter, Richter), in view of Kaplan, et al., U.S. Pub. No. 2008/0225832 (hereinafter, Kaplan). The Applicant respectfully

submits that the claims define patentable subject matter. Specifically, the Applicant respectfully submits that the combination of references fails to disclose or suggest "aggregating messages from a physical layer of each communication band and each communication channel associated with each of a plurality of protocols in a single multi-protocol layer of the multi-band, multi-protocol network; identifying an optimal communication path from among said communication band and said communication channel based on said aggregated messages in said single multi-protocol layer". The Applicant supports its position and also respectfully traverses these rejections at least for the following reasons:

I.　The Proposed Combination of Richter and Kaplan Does Not Render Claims 1-42 Unpatentable

A.　Independent Claims 1, 11, 21, 31 and 41

With regard to the rejection of independent claim 1 under 35 U.S.C. § 103(a), the Applicant submits that the combination of Richter and Kaplan does not disclose or suggest at least the limitation of "aggregating messages from a physical layer of each communication band and each communication channel associated with each of a plurality of protocols in a single multi-protocol layer of the multi-band, multi-protocol network; identifying an optimal communication path from among said communication band and said communication channel based on said aggregated messages in said single multi-protocol layer," as recited by the Applicant in independent claim 1.

The Final Office Action states the following:

> For claims 1, 11, 21, 31, and 41, Richter teaches a method, a machine-readable storage (see flow chart in Fig. 7), a system (see Title and Figs. 1, 2, 4) for providing enhanced connectivity in a network (see Fig. 4 for connection from LAN to WAN), comprising:

> receiving messages from a physical layer in a layer above a MAC layer (see Fig. 4 for PD in unit 54 to receive messages from hardware layer 52 and MAC layer 50; PDs 54 are the next layer up from MACs 50 in all of the communications, IEEE and ISO, architectures, see col. 4, lines 40-42. PD stands for Protocol Drives, see col. 4, line 38).

See Final Office Action at page 2. The Examiner relies for support on Richter to teach "receiving messages from a physical layer in a layer above a MAC layer." Initially, the Applicant questions the applicability of Richter since the above language cited by the Examiner is not specifically recited in Applicant's claim 1. Additionally, Richter does not even disclose "receiving messages from a physical layer in a layer above a MAC layer."

In the above citation, the Examiner alleges "PDs 54 are the next layer up from MACs 50 in all of the communications, IEEE and ISO, architectures, see col. 4, lines 40-42. PD stands for Protocol Drives, see col. 4, line 38." Firstly, the "PD" disclosed by

Richter stands for "Protocol Drivers" (not Drives, as stated by the Office Action). Secondly, Richter's protocol drivers are a part of the MAC layer, and they are not a "layer above a MAC layer". For example, the entire Richter reference relates to an improved MAC architecture (*See* Richter at col. 1, lines 60-64). Furthermore, the Protocol Drivers (PDs) are drivers, which are used during a binding process for a MAC interface (*See id.* at, e.g., FIGs. 12-13, steps 350, 404, 410; col. 22, lines 23-40).

Therefore, Richter does not disclose "receiving messages from a physical layer in a layer above a MAC layer." As additional deficiencies of Richter, the Examiner concedes the following:

> However, Richter fails to specifically teach aggregating messages from a physical layer of each communication band and each communication channel associated with each of a plurality of protocols in a single multi-protocol layer of the multi-band, multi-protocol network; identifying an optimal communication path based on said received messages in said single layer; and establishing a communication session using said identified optimal communication path.

(*See* Final Office Action, p. 2-3.) The Examiner then seeks support in Kaplan and states:

> Kaplan teaches ... aggregating messages from a physical layer of each communication band and each communication channel (see Fig. 1, the unit 26 aggregates messages from different types of devices with different bands through different channels; the wireless interface 20 may be configured for communications by any type of wireless communications such as infrared, radio frequency, optical, etc., see [0021], last 3 lines. The "infrared, radio frequency, optical" are multi-band) associated with each of a plurality of protocols in a single multi-protocol layer of the multi-band, multi-protocol network (Fig. 1 shows many network adapters 12-20 (including the LAN and WAN adapters 14, 16 mentioned in Richter). The T1, LAN, WAN, POTS and wireless of the network adapters 12-20 are different protocols);

> identifying an optimal communication path based on said received messages in said single layer (see routing optimization unit 26 in Fig. 1; multi-protocol routing optimization ... the path chosen for transmission of a data file, see [0025], lines 1-6); and

> establishing a communication session using said identified optimal communication path (see Fig. 1, and the path chosen for transmission of a data file, see [0025], lines 1-6).

> Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Richter with Kaplan to

obtain the invention as specified, for the user to specify his priorities as to the parameters, in making the routing determination, see [0025], last 4 lines), and to have various wired network adapters and various wireless adapters to provide access to various commercially-available networks as desired for best routing.

(*See* Final Office Action, p. 2-3.) Kaplan discloses a telecommunications switching system employing multiprotocol routing optimization, which utilizes predetermined and measured parameters in accordance with a set of user priorities in determining the selection of a telecommunications path to be utilized for transmitting a data file to a remote destination. Referring to Fig. 1, the Examiner alleges "the unit 26 aggregates messages from different types of devices with different bands through different channels." The Applicant respectfully disagrees. However, after carefully reading the Kaplan reference, the Applicant was not able to find even a single reference disclosing message aggregation by the routing optimization methodology block 26. The routing optimization methodology block 26 uses two main components (the parameters of which are listed in Tables A and B in p. 3 of the reference) in order to make a signal path selection.

More specifically, the routing optimization methodology block 26 uses a measure of the inherent efficiency of a communication path and a measure of relative parameters that may exhibit a wide variance. This methodology allows for the routing optimization methodology block 26 to select an optimal route based on analysis of multiple protocols employed by the system, rather than a least cost routing decision. (*See* Kaplan, p. 3, paragraphs 0025-0033). In this regard, the routing optimization methodology block 26 not only does not perform message aggregation, but it also does not base any route selection decision on such message aggregation. Therefore, Kaplan does not disclose "aggregating messages from a physical layer of each communication band and each communication channel associated with each of a plurality of protocols in a single multi-protocol layer of the multi-band, multi-protocol network; identifying an optimal communication path from among said communication band and said communication channel based on said aggregated messages in said single multi-protocol layer," as recited in Applicant's claim 1.

Additionally and in reference to Applicant's claim 41, the Applicant points out that neither Richter nor Kaplan (or their combination) discloses "a multi-protocol layer above, and interfacing with, said MAC layer". As explained above, Richter is deficient in disclosing this limitation as it relates to processing within the MAC layer (See explanation above related to the MAC binding functionalities of the protocol drivers). Kaplan is also deficient as it does not disclose a multi-protocol layer above the MAC layer.

Accordingly, the proposed combination of Richter and Kaplan does not render independent claim 1 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 1 is allowable. Independent claims 11, 21, 31 and 41 are similar in many respects to the method disclosed in independent claim 1. Therefore, the Applicant submits that independent claims 11, 21, 31 and 41 are also allowable over the references cited in the Office Action at least for the reasons stated above with regard to claim 1.

B.   Rejection of Dependent Claims 2-10, 12-20, 22-30, 32-40 and 42

Based on at least the foregoing, the Applicant believes the rejection of independent claims 1, 11, 21, 31 and 41 under 35 U.S.C. § 103(a) as being unpatentable over Richter in view of Kaplan has been overcome and requests that the rejection be withdrawn. Additionally, claims 2-10, 12-20, 22-30, 32-40 and 42 depend from independent claims 1, 11, 21, 31 and 41, respectively, and are, consequently, also respectfully submitted to be allowable based on the above arguments. The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 2-10, 12-20, 22-30, 32-40 and 42.

In general, the Final Office Action makes various statements regarding claims 1-42 and the cited reference that are now moot in light of the above. Thus, the Applicant will not address such statements at the present time. However, the Applicant expressly reserves the right to challenge such statements in the future should the need arise (e.g., if such statement should become relevant by appearing in a rejection of any current or future claim).

II.   Conclusion

The Applicant respectfully submits that claims 1-42 of the present application should be in condition for allowance at least for the reasons discussed above and request that the outstanding rejections be reconsidered and withdrawn. The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Respectfully submitted,

Date: 29-NOV-2011   By: _____/Ognyan I. Beremski/_____
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